

1) System Parameters

Antenna circuit

f (Hz)	ω (rad/s)	Rin (Ω)	VPSTX (V)
13.6E+6	85.5E+6	27.0E+0	3.0E+0

Reset Values

Reader Antenna Parameters (user defined)

Ra (Ω)	La (H)	Za (Ω)
1.0E+0	1.10E-6	1+93.9964521954066i

Low Pass Filter Parameters (user defined)

L01=L02 (H)	C01=C02 (F)
640.0E-9	180.0E-12

Receiving Path Circuit Parameters (user defined)

Rrx (Ω)	Crx (F)	Zrx (Ω)
42.0E+0	1.0E+12	84-2.34051386899846E-20i

Reader antenna dimension

L (mm)	W (mm)
37.6E+0	14.0E+0

Antenna Turn Number

4

CR95HF

CR95HF Receiving Circuit Parameters	
CCR95HF	RCR95HF
22.0E-12	1.0E+9

Rout

27.00

2) Theoretical Tuning Capacitance Calculation

C11=C12 (F)	C2 (F)
21.7E-12	92.2E-12

→

Zin	
Magnitude	Phase *
27.00	0.00

3) Actual Antenna Circuit Input Impedance Calculation (based on user defined Tuning capacitance Value)

User L01=L02 (H)	User C0 (F)	User C11=C12 (F)	User C2 (F)
640.0E-9	180.0E-12	22.0E-12	92.0E-12

→

actual Zin	
Magnitude	Phase *
27.61	1.35



Geometry

Turns

Antenna Length mm

Antenna Width mm

Conductor

Width mm

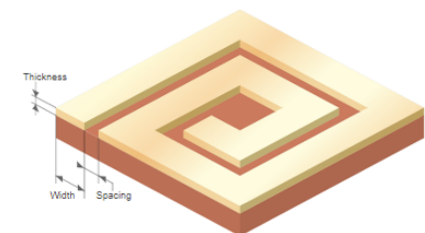
Spacing mm

Thickness μ m

Substrate

Thickness mm

Relative Electrical Permittivity (ϵ_r)



Antenna Results

Segmentation Mode: Vertical
 Segments: 16
 Equivalent Inductance: **1.06 μ H**
 @13.56 Mhz

